

REMARKS

Upon entry of the amendment, claims 1-12 will be all the claims pending in the application. Claim 13 has been canceled and claims 1-5 and 9 have been amended. Support for amended claims 1-5 and 9 can be found, for example, in the Examples of the present specification.

Applicants respectfully submit that with the entry of the proposed amendments, the present application will be in condition for allowance. Accordingly, entry of the above amendments is respectfully requested.

Also, Applicants note that the Examiner has not returned an initialed and signed copy of the Form PTO-1449 filed on October 28, 2002. Accordingly, the Examiner is respectfully requested to do so.

I. Response to rejection of Claims 9-13 Under 35 U.S.C. § 102(b)

On page 2 of the Office Action, the Examiner maintains the rejection of claims 9-13 under 35 U.S.C. § 102(b) over Ikeda.

Applicants respectfully traverse this rejection for the following reasons.

The present invention relates to a method for measuring a thiol group-containing compound by contacting a sample containing a thiol group with a thin membrane, which comprises microparticles of a metal and a hydrophilic binder, and optionally a crosslinking agent. Therefore, in the present invention, a metal, which is not ionizable, is used.

In contrast, Ikeda simply discloses the use of silver halide and fails to teach the use of any metal.

As demonstrated in the Examples of the present invention, the thin membranes

containing colloidal silver gave stronger color changes than the membrane containing silver halide.

In addition, Ikeda is directed to a photographic photosensitive material whereas the present invention relates to a thin membrane for detecting thiol group-containing compounds in, for example, a living body tissue. Therefore, Ikeda is from a very different technical field than that of the invention, and is not "analogous art".

In view of the above, it is respectfully submitted that Ikeda fails to teach or suggest the present invention.

Accordingly, withdrawal of the foregoing rejection is respectfully requested.

II. Response to rejection of Claims 1-13 Under 35 U.S.C. § 103(a)

On pages 2-3 of the Office Action, the Examiner maintains the rejection of claims 1-13 under 35 U.S.C. § 103(a) over Holger in view of Kerschensteiner.

Applicants respectfully traverse this rejection for the following reasons.

The present invention relates to a method for measuring a thiol group-containing compound by contacting a sample containing a thiol group with a thin membrane, which comprises microparticles of a metal and a hydrophilic binder, and optionally a crosslinking agent. The metal used in the present invention is not ionizable, and a thin membrane is contacted with a sample.

Holger discloses a method of detecting thiol compounds using a reagent containing Fe^{3+} ions. Fe^{3+} ions are not a metal, as used in the present invention.

In addition, the reagent of Holger can be sprayed on or impregnated into absorbent or swellable carriers, preferably filter paper or absorbent fleece of glass or plastic. Therefore, an aqueous solution as a detection agent is required in the process

of Holger.

Kerschensteiner relates to a method for detecting thiol-containing compounds using colloidal metal sol suspensions, which have a flocculated state, as a reagent or reaction mixtures. Monodispersed colloids flocculate in the presence of a thiol compound to provide a change of color, and therefore a dispersion of particles is used in the process of Kerschensteiner.

In view of the above, there is no technical motivation to one of ordinary skill in the art to combine Kerschensteiner with Holger to obtain the thin membrane of the present invention. That is, one of ordinary skill in the art would not be motivated to use colloidal metal sol in the reagent of Holger and spray the reagent or impregnate the reagent into absorbent or swellable carriers, which is dried, because the purpose of using colloidal metal sol disclosed in Kerschensteiner would be defeated (i.e., detecting color by observing flocculation).

Accordingly, one of ordinary skill in the art would not be motivated to combine Holger and Kerschensteiner to arrive at the present invention.

Therefore, Holger and Kerschensteiner fail to teach or suggest the present invention, and withdrawal of the foregoing rejection is respectfully requested.

III. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.116
US. Application No.: 09/786,883

Attorney Docket Q63526

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Keiko K. Takagi
Registration No. 47,121

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE



23373

PATENT TRADEMARK OFFICE

Date: January 17, 2003

APPENDIX
VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claim 13 is canceled.

The claims are amended as follows:

1. (Amended) A method for measuring a thiol group-containing compound, which comprises the steps of:

(1) contacting a sample containing a thiol group-containing compound with a thin membrane comprising a microparticle of [a substance selected from the group consisting of] a metal [and a metal compound] and comprising a hydrophilic binder, and (2) detecting a color change on the thin membrane resulting from interaction of the thiol group-containing compound and the microparticle.

2. (Amended) A method for measuring a thiol group-containing compound, which comprises the steps of:

(1) contacting a sample containing a thiol group-containing compound with a thin membrane comprising a microparticle of [a substance selected from the group consisting of] a metal [and a metal compound] and comprising a hydrophilic binder and a crosslinking agent, and

(2) detecting a color change on the thin membrane resulting from interaction of the thiol group-containing compound and the microparticle.

3. (Amended) The method according to claim 1 or claim 2, wherein said metal [or a metal constituting said metal compound] is selected from the group consisting of a metal of the 2nd period, 3rd period, 4th period, 5th period, and 6th period of the periodic table of elements.

4. (Amended) The method according to claim 1 or 2, wherein said metal [or a metal constituting said metal compound] is [a metal] selected from the group consisting of a metal of Group VIb, Group VIIb, Group VIII, Group Ib, Group IIb, Group VIa and Group VIIa in the periodic table of elements.

5. (Amended) The method according to claim 3, wherein said metal [or the metal constituting said metal compound] is [a metal] selected from the group consisting of gold, silver, copper, and platinum.

9. (Amended) A thin membrane used for measurement of a thiol group-containing compound, which comprises a microparticle of [a substance selected from the group consisting of] a metal [and a metal compound] and comprises a hydrophilic binder.